

National Climatic Data Center

DATA DOCUMENTATION

FOR

DATASET 3102 (DSI-3102)

Panama Canal Watershed-Hourly Climatological Data

October 10, 2003

National Climatic Data Center
151 Patton Ave.
Asheville, NC 28801-5001 USA

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1. **Abstract:** Panama Canal Watershed-Hourly Climatological Data is historical dataset DS-3102 archived at the National Climatic Data Center (NCDC). These files contain daily summaries of the hourly climatological data for approximately 30 stations within the Panama Canal Watershed. Parameters include temperature, dew point, pressure, humidity, wind speed and direction, solar radiation and evaporation. This dataset also includes a separate file which contains 15-minute precipitation from the 1972-1973 time period. The hourly wind direction was calculated by the station firmware sampling the wind direction every 20 seconds. All other parameters were sampled at the same 20 second interval and an average was computed. The daily averages were calculated from the hourly data. The daily wind direction was computed using vectoral analysis to eliminate the problem of 359 degrees and 0 degrees representing north.

2. **Element Names and Definitions:**

15-min Precipitation File

Columns	Parameters
3-4	Station ID number
7-8	Year
11-12	Month
16-17	Day
20-23	Hour
28-30	*Rainfall (inches)

*Rainfall for the 15-min time period ending at the hour/minute of the respective data record.
 - 2400 represents the time period between 2345 and midnight.
 - 0015 represents the time period between midnight and 15 minutes past the hour of midnight.

Hourly Climatological Data

FIELD 01 IS THE STATION NUMBER: 65=COCO SOLO; 54=GATUN; 63=BALBOA FAA
 FIELD 02 IS THE YEAR: 1985
 FIELD 03 IS THE MONTH: 1=JAN
 FIELD 04 IS THE DAY: 1
 FIELD 05 IS THE WIND SPEED AVERAGE IN MPH: 5.8 MILES PER HOUR
 FIELD 06 IS THE WIND SPEED MAXIMUM IN MPH: 19.5 MILES PER HOUR
 FIELD 07 IS THE WIND SPEED MINIMUM IN MPH: 0.2 MILES PER HOUR
 FIELD 08 IS THE WIND DIRECTION (FROM WHERE IT COMES) IN DEGREES BEING
 359 = FROM THE NORTH
 90 = FROM THE EAST
 180 = FROM THE SOUTH
 270 = FROM THE WEST
 THUS, 308.3 IS A WIND COMING FROM THE WEST NORTH WEST
 FIELD 09 IS THE AIR TEMPERATURE AVERAGE IN DEGREES F: 79.3
 FIELD 10 IS THE AIR TEMPERATURE MAXIMUM IN DEGREES F: 91.7
 FIELD 11 IS THE AIR TEMPERATURE MINIMUM IN DEGREES F: 71.3
 FIELD 12 IS THE AVERAGE DEW POINT TEMPERATURE IN DEGREES F: 67.1
 FIELD 13 IS THE MAXIMUM DEW POINT TEMPERATURE IN DEGREES F: 72.3

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FIELD 14 IS THE MINIMUM DEW POINT TEMPERATURE IN DEGREES F: 63.8
 FIELD 15 IS THE AVERAGE BAROMETRIC PRESSURE IN INCHES OF MERCURY: 29.84
 FIELD 16 IS THE MAXIMUM BAROMETRIC PRESSURE IN INCHES OF MERCURY: 29.89
 FIELD 17 IS THE MINIMUM BAROMETRIC PRESSURE IN INCHES OF MERCURY: 29.77
 FIELD 18 IS THE AVERAGE RELATIVE HUMIDITY IN %: 67.9 %
 FIELD 19 IS THE MAXIMUM RELATIVE HUMIDITY IN %: 83.6 %
 FIELD 20 IS THE MINIMUM RELATIVE HUMIDITY IN %: 45.9 %
 FIELD 21 IS THE TOTAL SOLAR RADIATION IN LANGLEYS: 576.06
 FIELD 22 IS THE WIND PASSAGE FOR THE DAY: 138.5 MILES
 FIELD 23 IS THE DAILY EVAPORATION IN INCHES: 0.2215

Below is a list of 3 letter Identifiers, ID#, Station name, Latitude and Longitude and Elevation (meters):

STA	ID #	Name	Lat	Long	Elev (m)
ACL	50	Agua Clara	9° 22'	79° 42'	460
ALA	55	Alhajuela	9° 12'	79° 37'	40
FAA	63	Balboa FAA	8° 58'	79° 33'	12
BHT	60	Balboa Heights	8° 57'	79° 33'	30
BCI	04	Barro Colorado	9° 10'	79° 50'	34
CDL	51	Candelaria	9° 23'	79° 31'	98
CAN	21	Los Cañones	8° 57'	80° 04'	104
CAS	30	Las Cascadas	9° 03'	79° 41'	47
CHI	53	Chico	9° 16'	79° 30'	104
CHR	48	El Chorro	8° 58'	79° 59'	42
CNO	59	Caño	9° 04'	79° 49'	33
CNT	52	Ciento	9° 18'	79° 44'	38
CRI	56	Cristobal	9° 21'	79° 55'	11
CSO	65	Coco Solo	9° 22'	79° 53'	1
DHT	06	Diablo Heights	8° 58'	79° 34'	10
EMH	64	Empire Hill	9° 03'	79° 40'	61
ESC	14	Escandalosa	9° 25'	79° 35'	480
GAM	16	Gamboa	9° 07'	79° 42'	34
GAT	54	Gatun	9° 16'	79° 55'	25
GTW	09	Gatun West	9° 16'	79° 56'	35
GUA	46	Guacha	9° 10'	79° 56'	29
HHI	41	Hodges Hill	9° 03'	79° 39'	70
HUM	43	Humedad	9° 03'	80° 02'	31
LMB	70	Limon Bay	9° 21'	79° 55'	3
MLR	42	Monte Lirio	9° 14'	79° 51'	34
PEL	45	Peluca	9° 23'	79° 34'	107
PMG	61	Pedro Miguel	9° 01'	79° 37'	34
RAI	44	Las Raíces	9° 06'	79° 59'	34
RPD	66	Río Piedras	9° 17'	79° 24'	150
SAL	47	Salamanca	9° 18'	79° 35'	82
SMG	49	San Miguel	9° 25'	79° 30'	520
SRO	08	Santa Rosa	9° 11'	79° 39'	50

3. **Start Date:** 19720101

4. **Stop Date:** 19981231

5. **Coverage:**

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- a. Southernmost Latitude: 8.57S
- b. Northernmost Latitude: 9.25N
- c. Westernmost Longitude: -80.04W
- d. Easternmost Longitude: -79.30E

6. **How to Order Data:**

Ask NCDC's Climate Services about the cost of obtaining this data set.
Phone: 828-271-4800
FAX: 828-271-4876
E-mail: NCDC.Orders@noaa.gov

7. **Archiving Data Center:**

Archive Branch
National Climatic Data Center
151 Patton Avenue
Asheville, NC 28801

8. **Technical Contact:**

National Climatic Data Center
151 Patton Avenue
Asheville, NC 28801

9. **Known Uncorrected Problems:** None.

10. **Quality Statement:** None.

11. **Essential Companion Datasets:** None.

12. **References:** None.

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